DOCUMENT RESUME

ED 128 069 95 PS 008 719

AUTHOR Willis, E. Anne
TITLE Sensitizing Caregivers to Individual Differences in Infants: Some Useful Tools and Techniques.
INSTITUTION Cornell Univ., Ithaca, N.Y. Cornell Research Program in Early Development and Education.
SPONS AGENCY Central Midwestern Regional Educational Lab., St. Ann, Mo.; National Inst. of Education (DHEW), Washington, D.C.; Office of Education (DHEW), Washington, D.C.
PUB DATE Apr 74
CONTRACT NE-C-00-3-0103
NOTE 27p.; Filmed from best available copy

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS *Attendant Training; Behavior Rating Scales; Check Lists; Child Care; *Child Care Centers; *Child Care Workers; *Child Development; Cognitive Development; Day Care Programs; Day Care Services; Early Childhood Education; Emotional Development; Individual Differences; *Individualized Programs; Infant Behavior; *Infants; Language Development; *Measurement Techniques; Morale; Motor Development; Observation; Perceptual Development; Social Development; Testing; Training Techniques

ABSTRACT

This paper reports on the development and use of several tools designed to sensitize caregivers to the fact that infants are very different from one another and that caregiving needs to be tailored to the styles and needs of each child. Four approaches were used: (1) having caregivers rate the infants regularly on a small number of rating scales (which the caregivers themselves helped to develop), graphing these ratings bi-weekly and using them in regular staff discussions of the infants. Dimensions covered in the scales were affectivity, persistence, level of attention, sensitivity, activity, quieting and consolability, and initiation of exploration; (2) having caregivers develop and keep up-to-date a checklist charting each infant's progress in reaching various typical developmental landmarks (listed under five general headings: gross motor, manipulative, perceptual-cognitive, language and social); (3) having caregiver present during intermittent developmental testing of infants she cares for followed by discussion with program director; (4) making selected observations of particular infants and their environmental experience and using these as a basis for discussion with the caregiving staff. Appendices include the scales for rating infant characteristics, rating sheets, and checklist of developmental landmarks. (MS)

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SENSITIZING CAREGIVERS TO INDIVIDUAL DIFFERENCES IN INFANTS: SOME USEFUL TOOLS AND TECHNIQUES[1]

PS

E. Anne Willis

A Report from the
Cornell Research Program
in
Early Development and Education

Department of Human Development
and Family Studies
New York State College of Human Ecology
A Statutory College of the State University
Ithaca, New York 14850
April, 1974

PS 008719

[1]Preparation of this report and the research and development program upon which it is based were supported in part by the National Institute of Education, U.S. Department of Health Education and Welfare (Contract NE-C-00-3-0103); and by CEMREL, Inc. a private non-profit corporation, through funds from the U.S. Office of Education and the National Institute of Education.

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SENSITIZING CAREGIVERS TO INDIVIDUAL DIFFERENCES IN INFANTS: SOME USEFUL TOOLS AND TECHNIQUES

E. Anne Willis

It is widely acknowledged by many people who plan and implement programs for infants (e.g., Willis and Ricciuti, 1974) that individualizing care -- tailoring caregiving practices to the styles and needs of each child served -- is critical if the infants' experience is to be a quality one. The emphasis in a program for babies has to be on the individual rather than on the group to a greater extent than is the case with older children. While it is important to impress upon caregivers the importance of staying "tuned in" to behavioral and temperamental characteristics of individual babies, it is not sufficient to simply remind them of this without taking further steps to help them achieve this goal.

In an effort to assist caregivers in maintaining an awareness of the competencies, temperament, style of interacting, and overall developmental progress of each baby in their care, the staff of the Cornell Nursery developed several tools to be used by caregivers in an ongoing way. The following four approaches to sensitizing caregivers were used in the program:

1) having the caregivers rate the infants regularly on a small number of rating scales which the caregivers themselves helped develop, graphing these ratings bi-weekly, and using them in regular staff discussions of the infants;
2) having caregivers keep up to date a checklist charting each infant's progress in reaching various typical developmental landmarks, as observed in the nursery by the caregivers themselves;

3) having the caregiver present during intermittent developmental testing of the infant, followed by discussion with the program director;

4) making selected observations of particular infants and their environmental experiences and using these as a basis for discussion with the caregiving staff.

Scales for Rating Infant Characteristics

There are some behavioral characteristics in which babies differ greatly even in the first few months of life, and which caregivers need to be aware of if they are to care for each baby according to his individual needs.[1]

The rating scales used in the Cornell program were developed through a number of adaptations and revisions. The scales were used at times to gather data for research purposes (Poresky and Ricciuti, 1972); however, in the final year of program operation (1972-73) the focus was on making them optimally useful in sensitizing caregivers to individual differences in the infants. Scales were added, eliminated, or changed primarily on the basis of the caregivers' judgment of how helpful they were. This point is emphasized because the final version of the scales is quite different, both in the dimensions of temperament and behavior covered and in wording, from earlier versions used to collect research data.

The scales, contained in Appendix 1 in the final form arrived at in Spring 1973, can be described briefly as follows:

1. Affectivity

This scale was simplified drastically over the year, changing from a technically worded nine point scale with specifically defined points in

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[1] Many of these characteristics are discussed by T.B. Brazelton, in Infants and Mothers.

terms of facial, vocal, and manipulative-postural cues. The current version allows caregivers to make an overall assessment of the baby's mood in the period under consideration on a five point scale ranging from very positive and happy to irritable and fussy.

2. Persistence

The baby's rating of persistence on this six point scale refers to his way of coping when he is engaged in a goal-directed activity and encounters some kind of block or barrier. Scale points range from giving up right away to trying very hard, making repeated attempts even after failure seems inevitable.

3. Level of Attention

This scale describes the young child's typical degree of involvement in activities on a 6 point scale, ranging from fleeting attention, easily distracted, to sustained deep involvement or "absorption."

4. Sensitivity

This scale refers to the infant's threshold for tolerance of changes in the environment, ranging from little or no reaction to large changes, to showing negative reactions to even very small changes in the environment.

5. Activity

This scale is used to describe how busy the baby is, how many activities he engages in. The five scale points range from spending a lot of time doing nothing to engaging in many activities, always busy.

6. Quieting and Consolability

This 9 point scale is used to describe how easily the baby can be quieted or can quiet himself when upset. The low point describes a baby who has to "cry himself out", who cannot be soothed and does not try to quiet himself,

and the high point a baby who quiets himself or can be quieted very easily (see Brazelton [1969] for further discussion of this characteristic).

7. Initiation of Exploration

This 5 point scale is used to rate the degree to which the baby initiates his own activities or waits for suggestions or help from others.

Time was provided for caregivers to rate the babies in their care two to three times a week. Since one caregiver was assigned primary responsibility for each baby, she most often rated her own babies. At certain times caregivers were asked to focus their attention on the same baby or babies, and comparisons of their ratings were a focus for group discussion. Caregivers preferred to give ratings based on the baby's behavior for a maximum of one day. They found it more difficult to focus on longer periods of time, a two or three day period, for example.

The most useful type of rating sheet in the caregivers' judgment was one which allowed them to make judgments along a continuum rather than being confined to specific defined scale points. A copy of the rating sheet is contained in Appendix 2.

Bi-weekly individual averages were obtained frequently, and developmental graphs were made for each child. These graphs were accessible to the caregivers. If they are to be helpful in determining caregiving practices, data of this sort and opportunities to discuss them must be available very soon after the ratings are made by the caregiver. Bi-weekly plots for several babies, as they might be presented to caregivers for discussion, are contained in Appendix 3.[1]

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[1] Barbara Bauer helped to develop the scales, analyzed much of the data, and prepared the graphs. Her help is greatly appreciated.

Because the scales were being revised over the year, we do not have continuous data for more than a 4 week period. Consequently, the graphs show bi-weekly plots for 3 discontinuous 4 week periods for 4 babies. There are no data available for the Affectivity scale, since it was changed to its present form at the end of the program.

The program director led many of the discussions of the scales and was primarily responsible for initially training the caregivers in their use, and interpreting the babies' behavior in the nursery in terms of the scales. Discussions were typically centered around the most current graphs for individual babies and whether or not the plots accurately reflected the child's behavior, differences between children, what might be the cause of changes in behavior reflected in the graphs. Initial discussions were for the purpose of familiarizing caregivers with the terminology, establishing for all of them a common framework for looking at the babies.

Information about changes in individual babies over time is important, for it may reflect a reaction to certain changes in the environment or in development which will have implications for caregiving practices. For example, a drop in Affectivity and an increase in Sensitivity during a period when a new caregiver enters the program may reveal to the staff something about how the baby feels about strangers. At any time, however, the scales provide a useful way of comparing and contrasting babies in terms of the dimensions covered by the scales. These comparisons are valuable only when carried out with the objective of individualizing care.

While there are definite advantages to making ratings continuously and discussing them frequently, the time and number of responsibilities involved in caring well for babies in a group program may make ongoing ratings and frequent discussion of them impractical. In light of this fact, it was the judgment of the caregivers and the program director in the Cornell nursery that the main benefit of the rating scales lay in the actual process of doing the ratings and learning to look at the babies along the dimensions contained in the scales. The caregivers felt that in the beginning of a baby's participation

in a program, rating him perhaps as frequently as daily was a good way to get to know him. After a certain amount of time, however, the caregivers felt that the dimensions covered in the scales had become so basic a part of the way they looked at the babies that the actual process of doing the ratings was no longer very helpful. Their recommendation was that ratings definitely be made by caregivers under four circumstances: 1) when a baby first comes to a program (for 8-10 weeks) 2) by all caregivers when a new caregiver begins working in a program (for 8-10 weeks) 3) when a baby seems to be having a difficult time, and/or caregivers feel that they do not fully understand him 4) when a change has been made in the program (staffing, group composition, the way routines are carried out, for example), and the staff wants to assess the effects on the babies.

It has been emphasized that the scales serve to focus the caregivers' attention on the babies. If this does not happen informally in conversation except when ratings are being done, then more extensive use is indicated. Discussions of the babies must be an ongoing part of the program, and the scales provide a common basis for discussion. The focus must always be on the implications for caregiving practices and the experience the baby is having.

For example, the caregivers in the Cornell nursery noticed that a particular baby's ratings on Initiating Exploration and Level of Attention increased during a two week period when several of the babies were on vacation and not attending the nursery. A discussion of this information with the program director led them to see that this baby was one who was very easily distracted by whatever was going on in the room and was much better able to concentrate in a quiet, less busy setting. They decided to try to provide this baby with quiet time away from the group to play.

Developmental Landmarks Checklist

If caregivers are to care sensitively for babies, they must have considerable knowledge about early development, the significance of major developmental landmarks, and their typical order and age of occurrence. The caregivers in the Cornell program developed a checklist of developmental landmarks by which they charted each baby's progress (Appendix 4). The checklist in the Cornell program was taken from several standard descriptions of major developmental changes, including developmental assessments (Cattell, Bayley) and Infants and Mothers, by T.B. Brazelton. The skills contained in the list were those the caregivers judged to be important in their implications for the kinds of experiences the baby should be provided and how he should be cared for.

The behaviors were listed in their typical order of appearance under five general headings: gross motor, manipulative, perceptual-cognitive, language, and social. The categorization was primarily intended to facilitate caregivers finding specific entries. The caregivers set aside a time each week to scan the checklist and note the approximate date of occurrence of new behaviors.

The items on the checklist should by no means be considered self-explanatory, and it is recommended that caregivers spend several training sessions with demonstrations and discussions of what the behaviors listed look like. In the Cornell program, the program director spent much time in the nursery with the caregivers pointing out landmark behaviors and discussing them as they occurred. The developmental assessments (discussed below) were also helpful in familiarizing the caregivers with important developmental advances.

The checklist appropriately used will facilitate sensitive individualized caregiving. For example, a caregiver sensitized to notice that a three and a half month old baby is beginning to reach for objects will be sure to provide many opportunities for reaching and grasping, where before she may have been primarily concerned with providing the baby with interesting things to look at. Used inappropriately, calling attention to developmental progress may foster competition among caregivers who are trying to get their babies to "do things first" or encourage them to place undue emphasis on "teaching" a baby a particular skill. The checklist must be presented in the context of development as a predictable orderly process that allows for individual differences in style and pace. While caregivers should be concerned about major deviations from developmental norms, it is not desirable that they view developmental landmarks as rigid absolute norms to be met.

As was true with the rating scales, the main value of the checklist of developmental landmarks lies primarily in the process of actually noting the behaviors, in that it increases the caregivers' awareness of the skills and competencies each baby has in his repertoire. The assessment of whether or not a baby has acquired a particular skill is easy to make and takes very little of the caregiver's time, and the process becomes a reminder to the caregiver of important developmental landmarks.

While there are many such lists already developed, the caregivers and program director in the Cornell Nursery felt that going through the process of deciding what behaviors to include was valuable in sensitizing them initially to early development. Discussion of the significance of different behaviors and their inclusion on such a checklist can be an effective way of helping caregivers to notice and appreciate developmental progress in many different modalities, not just the more obvious large motor skills.

Serious developmental lags in several areas may be cause for concern, and while much more information than that on an informal development checklist is necessary, keeping this kind of record may be helpful in alerting the caregiver early that there may be a problem. If so, she should consult the program director, and they can get appropriate further consultation.

Developmental Assessments

Having caregivers observe and participate, as the mother normally would[1] in intermittent formal developmental assessments can be useful in helping caregivers become more sensitive to and knowledgeable about each baby's development. Any one of several standard tests (Bayley, Cattell, Griffiths, Denver) may be used. Developmental assessments must be used cautiously, however, for they can have undesirable effects. Much of the responsibility for their use or misuse lies with the person who administers the tests and interprets them to the caregivers.

Appropriately used, a developmental assessment establishes a relaxed though fairly standardized situation outside the nursery where a caregiver can focus her attention on one baby, his style and developmental skills. The standardized procedure and setting allow her to compare what he can do now with his skills the last time he was tested. A skilled tester, ideally someone who knows the babies outside the testing situation, will ask questions of the caregiver, involve her in the assessment, and in general, view it as a learning time for the caregiver rather than the execution of a series of tasks in order to arrive at a numerical score for each infant. In the Cornell program, developmental quotient scores were never discussed with caregivers. Rather there was discussion of the baby's new skills, areas of development

[1] Parents in the Cornell program were invited to observe the developmental assessments from behind a one-way mirror.

where he excells. If there were areas where he seemed slow for his age, these were pointed out also.

In the Cornell program the developmental assessments were always observed, and sometimes conducted, by the program director. She served as an interpreter, both to the tester in giving information about the baby prior to the assessment and to the caregiver about the assessment when it was over. In discussions after the session, she and the caregiver could compare the baby's performance in the structured situation with his typical behavior in the natural nursery setting. This served as an effective way of stressing variability in behavior.

The caregivers in the Cornell program enjoyed the developmental assessment and would have preferred that they be given more frequently than bimonthly. One of the pleasures of it for the caregivers admittedly was the opportunity to "show off" her babies, to have attention focussed on the baby and herself, and to have the chance to demonstrate her knowledge and understanding of the baby. Secondly, the caregivers valued the new insights and appreciation of the baby that came from the testing situation. She might see the baby do things in the testing situation that she had never noticed before. Again the program director's role here is an important one, for she is the person who must help the caregiver translate the information and insights gained in the testing situation into caregiving practices and implications for the child's experience in day care. The program director and other observers noted a third positive outcome, which was that the items on the test seemed to generate for the caregivers ideas for new activities to try in the nursery, new possibilities for play. Evidence that observing developmental assessments may positively influence the interactions a parent has with a baby has been found by Lambie and Weikart (1973) in their infant home-teaching program.

Again, it must be stressed that inappropriate use of tests may contribute in a negative way to the infants' experience and development, by placing excessive value on getting a baby to demonstrate a skill early, whether or not it reflects his actual level of competence. If the purpose of the assessments is to further sensitize caregivers to individual babies, then the baby's performance in the testing situation must reflect in as much as possible the baby's real competencies. Excessive comparison of babies, or building structured activities into the program solely to improve babies' performance on developmental tests, are undesirable outcomes of developmental testing.

Observations

The value of giving caregivers information about individual babies on the basis of observations of the nursery must be explored more thoroughly. The scanning procedure (Johnston, 1973), developed to describe general features of the nursery environment, was thought to be adaptable for use for this purpose. The scanning was used in this way during one two-week period during the 1972-73 program. Briefly, the number of categories was reduced to those which would yield most information about how an individual baby was spending his or her time in the nursery. Rather than focussing successively on all babies in the group in order to be able to describe what the overall program was like, attention here was focused on two babies only. The two babies were selected for observation because the observers felt that they were having very different experiences in the nursery, especially in how much attention they were getting from the caregivers. While the initial attempt at using the scanning procedure to get that information failed to verify that hypothesis, it is not possible to say without much more observation and analysis whether the hypothesis was not correct or the procedure was not

sensitive enough to pick up the differences which were occurring. It was not possible to explore this more fully during the year.

However, on the basis of discussions held with the caregiving staff around this observational study and a longitudinal study of distress in the nursery (Johnston, 1974), one can say with certainty that information or even impressions from outside observers can be very effective in not only providing information but also stimulating caregivers to maintain an excited, questioning, challenging outlook on their responsibilities. As with the other tools, the program director plays a critical role in interpreting information from observers to caregivers and presenting it in a way that is meaningful.

General Conclusions

The critical important of maintaining high morale among caregiving staff, if program quality is to be high, has been stressed by many people concerned with programs for young children.[1] Experience in the Cornell program suggests that the four tools for sensitizing caregivers described above, in addition to giving caregivers valuable information to facilitate their caring sensitively for the babies, increase the quality of the program in another way -- namely, by helping to maintain high morale. They require more work of the caregiver, but these additional responsibilities carry with them the assumption that the caregiver is the authority on the baby in the program. Use of the tools, particularly the rating scales and developmental landmarks, allows the caregiver to be her own teacher, to give herself and

[1] Detailed discussion of this topic is contained in Chapter 9: Staff Composition, Training, and Morale in A Good Beginning for Babies (Willis and Ricciuti, 1974).

the other caregivers new information that will make caregiving a more exciting challenging job.

Use of the tools as a training device for new caregivers has been alluded to only indirectly. Supervised use of the rating scales and developmental landmarks can be a very effective way of orienting new staff members to the babies. Especially in working with inexperienced staff however, it must be remembered that none of the tools is self-explanatory; that is, they must be accompanied by discussion. Understanding of the concepts underlying the tools as well as their terminology and the way they are set up, time to use the tools seriously, and opportunities to talk about the information obtained and implications for caregiving practices must be provided if they are to serve a constructive purpose. The focus must be on sharpening the caregivers' sensitivity to individual differences as they appear in the babies they care for, rather than on comparing babies. Admittedly, the most difficult aspect of employing these tools in a program is finding the most effective way to get information back to caregivers in a useful way, and when that way is found, providing a time and setting for discussion. It is also true that any one of these tools is not likely to be effective if used in isolation. Each must be thought of as but one way of concretizing a general approach to babies or atmosphere for a program. The tools alone are not likely to bring about individualization of care or sensitivity to individual differences. In a program where the atmosphere and attitudes of staff and the operation of the program already lend themselves to providing a quality experience for each baby, these tools can serve a useful purpose in helping to carry out that aim. Finally, it should be mentioned that the increased awareness of infant characteristics can be very useful to caregivers as they discuss the infants' development with parents, an issue elaborated more fully in the manual A Good Beginning for Babies (Willis & Ricciuti, 1974).

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Willis, E.A. and Ricciuti, H.N. A good beginning for babies. Ithaca, New York: New York State College of Human Ecology, Cornell University, 1974.

Appendix 1

Scales for Rating Infant Characteristics

AFFECTIVITY

4 - Exceptionally good day - happy, bubbly, smiled and laughed a lot.
2 - Very good day - contented, happy, but not as bubbly and excited as 4.
0 - Good day - sober, so-so, not irritable but not sunny.
-2 - Fair day - cranky, fussed a lot, or just seems sad.
-4 - Miserable day - cried a lot, something seems wrong.

PERSISTENCE

Persistence is distinct from level of attention in that persistence necessarily involves some problem the child is having in a goal-directed activity. The category includes motor and other problem-solving activities (getting something out of a box, trying to stand up, etc.) Persistence refers to the child's way of coping when he is on his own - that is, before or without the caregiver's intervention.

1 - Gives up right away, after first attempt.
2 - Gives up after some sustained but minimal effort - minimal attempt to reach goal.
3 - Shows sustained goal approach behavior despite some failure.
4 - Makes continued efforts despite blockage but does not get upset - much sustained effort, no deterioration.
5 - Makes sustained attempts but compromises when failure seems inevitable - pursues less difficult related goal.
6 - Makes repeated attempts to reach goal even after failure seems inevitable - continues in spite of distress to point of less effective performance - continues efforts beyond point at which rater feels there ought to be some change in the activity.

LEVEL OF ATTENTION

1 - Always fleeting attention to activity; minimal involvement; plays only halfheartedly - indicated by child's being easily distracted.
2 - Sometimes 1, sometimes 3.
3 - Typically intermittent interest in activities; bursts of interests; responds to moderate distractions; child is attentive to activity but may look away occasionally or briefly stop activity for no obvious reason.
4 - Sometimes 3, sometimes 5 or 6.
5 - Typically deep involvement in activities, absorbed; not easily distracted - for short period of time (less than one minute)
6 - Same as 5 but for longer periods of time (several minutes).

SENSITIVITY

This scale is concerned with negative reactions to changes in the environment. Sensitivity refers to a response to something outside the baby (i.e., not hunger, sleepiness, illness).

1 - Usually shows little or no negative response even to large changes in the environment (for example, other baby crying nearby, caregiver absent, stranger close and interacting, sudden "assault" by another baby, sudden loud noise, change in routine, other baby taking toy).
2 - Occasionally shows some negative response to large change in the environment.
3 - Usually shows some negative response to moderate changes in environment (other baby crying in room, stranger present in room, persistent noise, increase in activity level in room).
4 - Occasionally shows some negative response to small changes in the environment.
5 - Usually shows some negative response even to very small changes in environment (e.g., change in lighting, slight increase in noise or activity level in the room, change in position, light touch, other baby approaching).

If an observable stranger reaction occurs, make a separate rating on this scale by placing an "S" next to the point in the column that describes the reaction. If no such rating is made we assume either that the caregiver didn't see a reaction or that the reaction was positive.

ACTIVITY

1 - Engages in few activities, spends a lot of time seemingly doing nothing.
3 - Engages in moderate number of different types of activities.
5 - Engages in many activities; always is busy.

QUIETING AND CONSOLABILITY

Use this scale to rate awake time only.

1 - Makes no attempt to quiet himself and cannot be socially soothed.
2 - Tries unsuccessfully to quiet himself and cannot be socially soothed.
3 - Does not try to quiet himself; sometimes quiets with intensive soothing.
4 - Cannot quiet himself; sometimes quiets with intensive soothing.
5 - Tries but cannot quiet himself; requires intensive soothing (rocking, carrying).
6 - Typically requires moderate (picked up) to intensive soothing.
7 - Occasionally is able to quiet himself but usually has to be picked up to be soothed.
8 - Typically quiets with minimal (talking at a distance, rocking) to moderate soothing.
9 - Typically quiets himself or requires only minimal amount of soothing.

INITIATION OF EXPLORATION

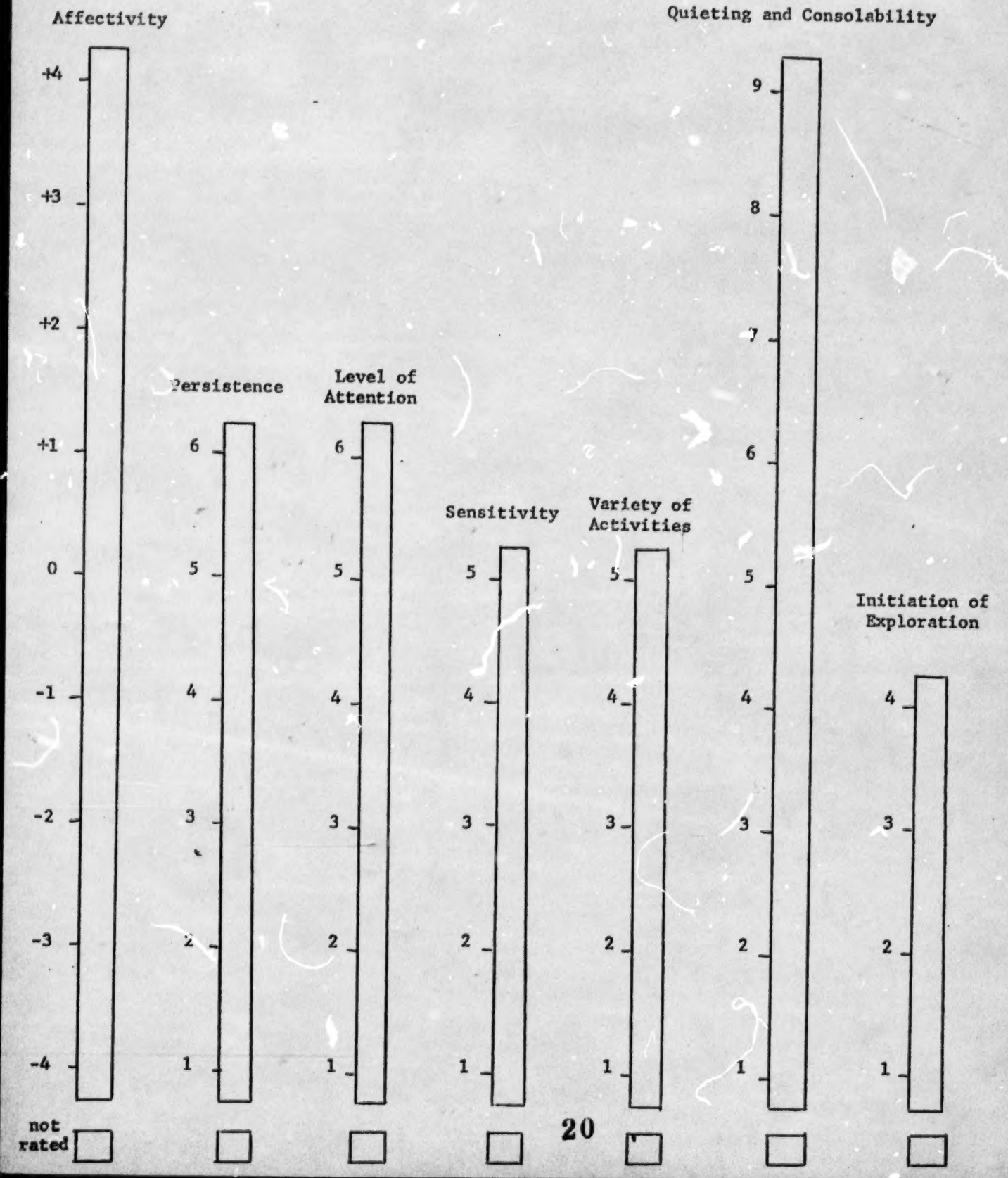
1 - Seldom or never initiates non-social play, becomes involved in activity only as a result of another's (usually caregiver's) initiation.
2 - Occasionally initiates activities but more characteristically waits to be shown or helped to begin
3 - Typically seeks out or sets up his own interactions without another's assistance, but sometimes waits to be helped or shown what to do.
4 - Initiates most of interactions with environment on own; does not rely on suggestions of others or help to begin play.

Appendix 2

Rating Sheet

Ratings for_____ Rater_____

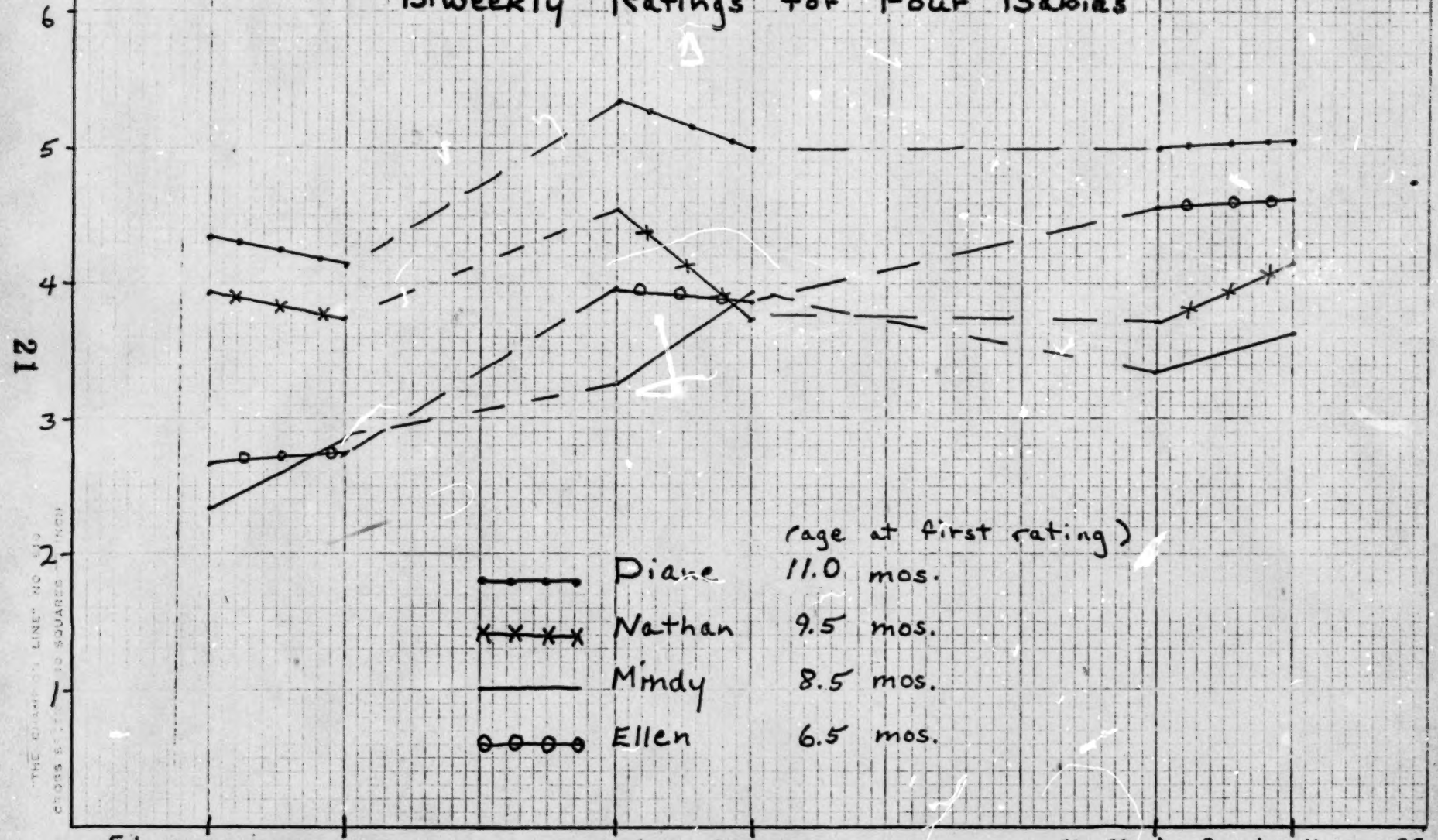
Date_____



Appendix 3 - Scales for Rating Infant Characteristics

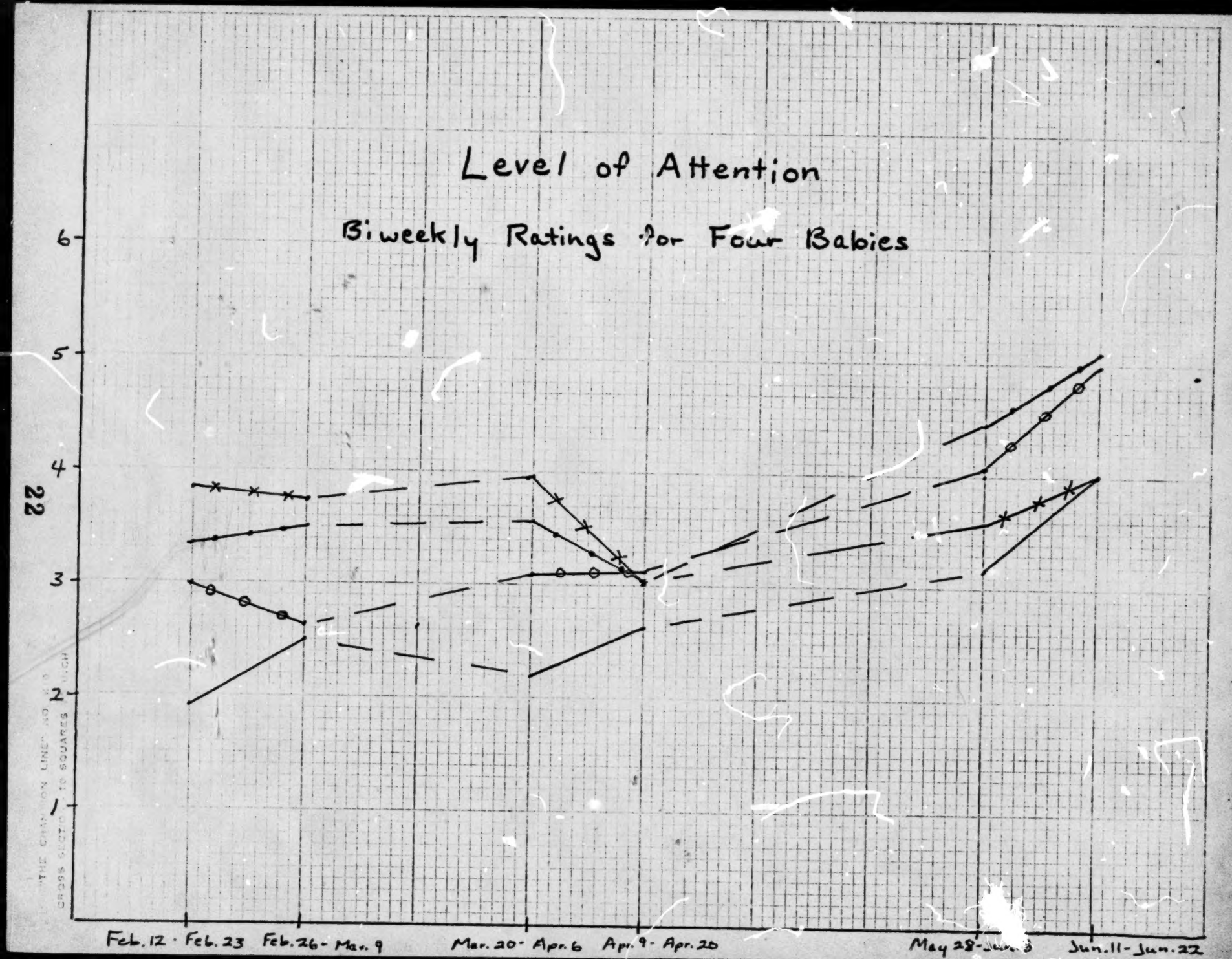
Persistence

Biweekly Ratings for Four Babies



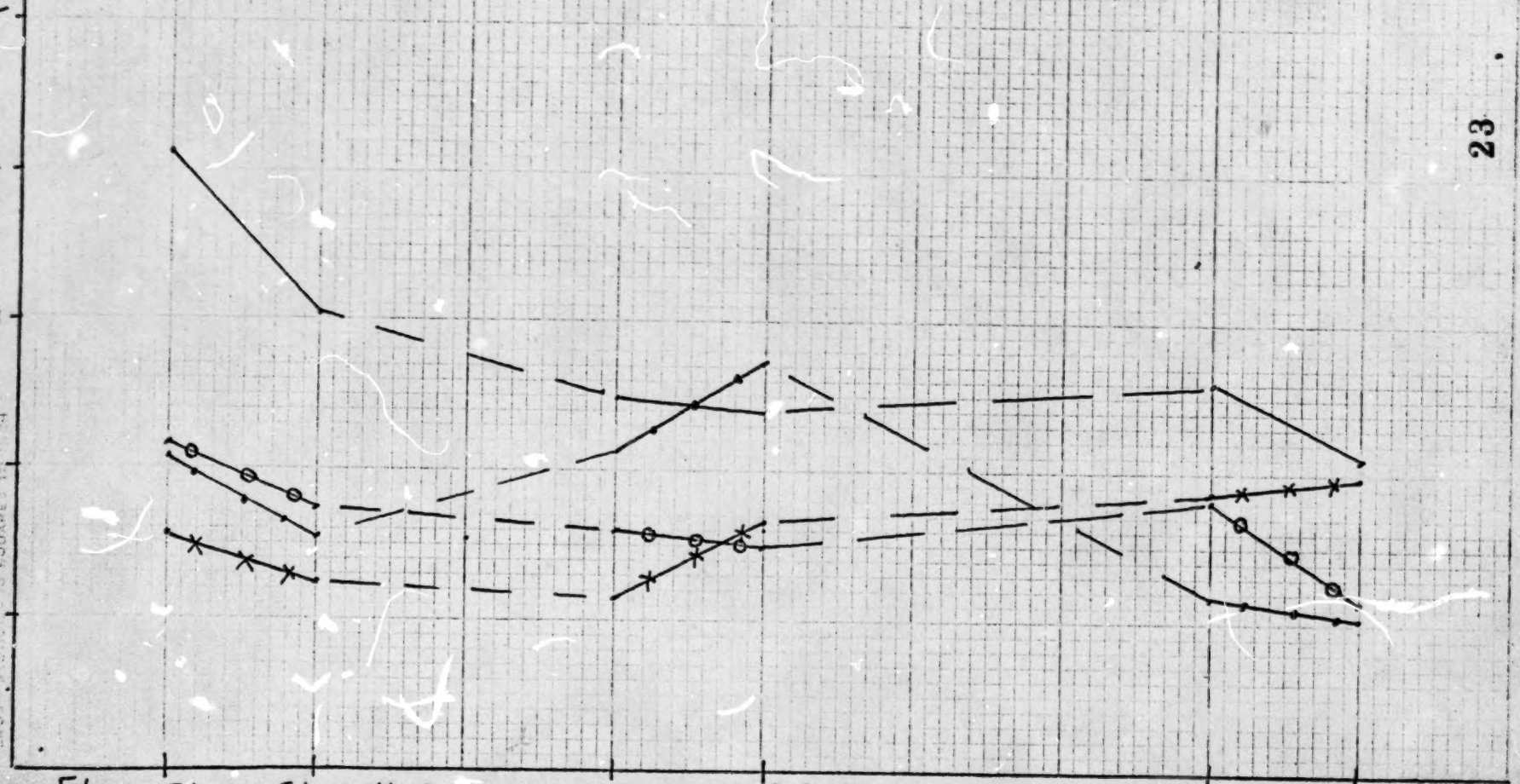
Level of Attention

Biweekly Ratings for Four Babies



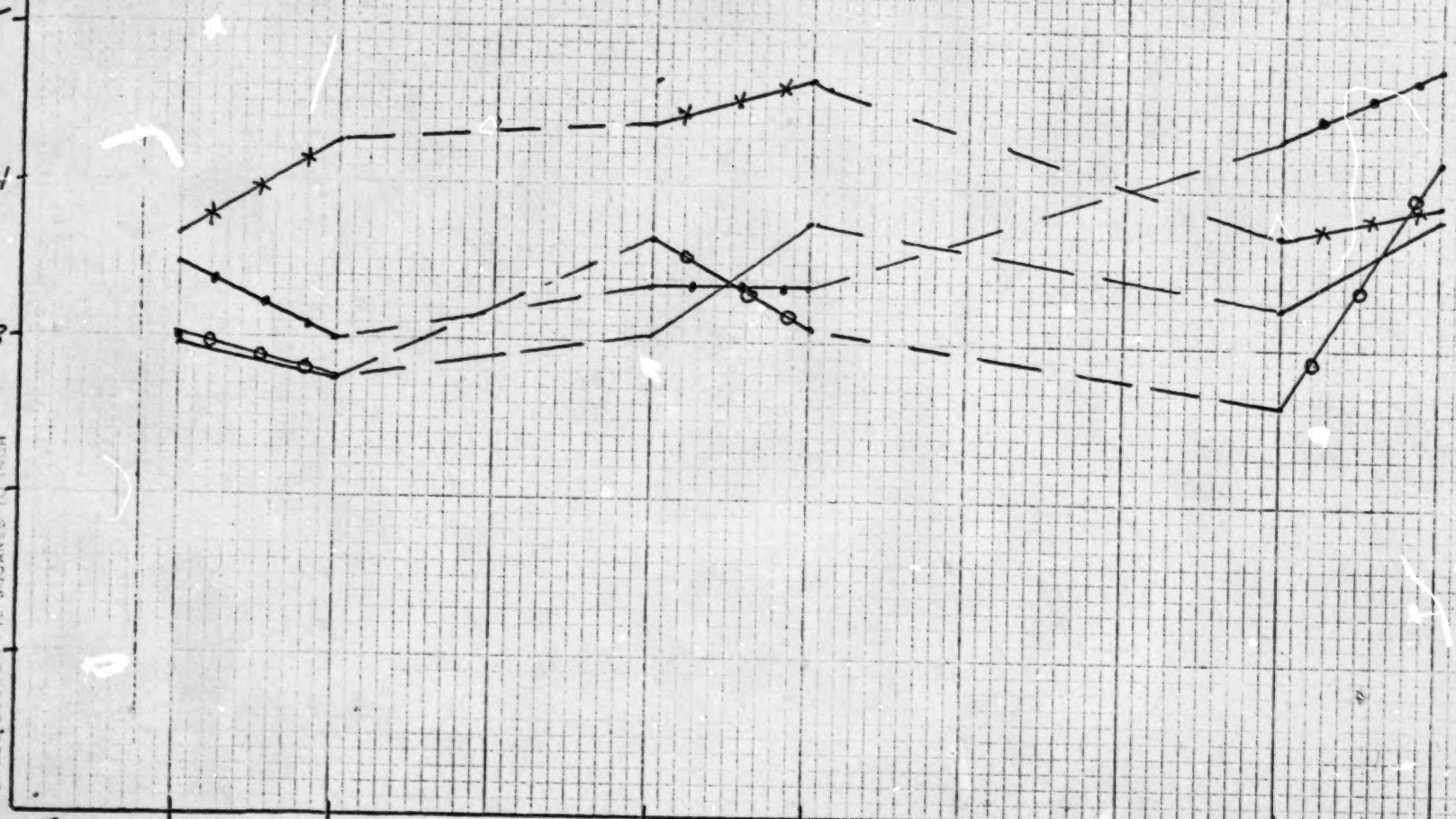
Sensitivity

Biweekly Ratings for Four Babies

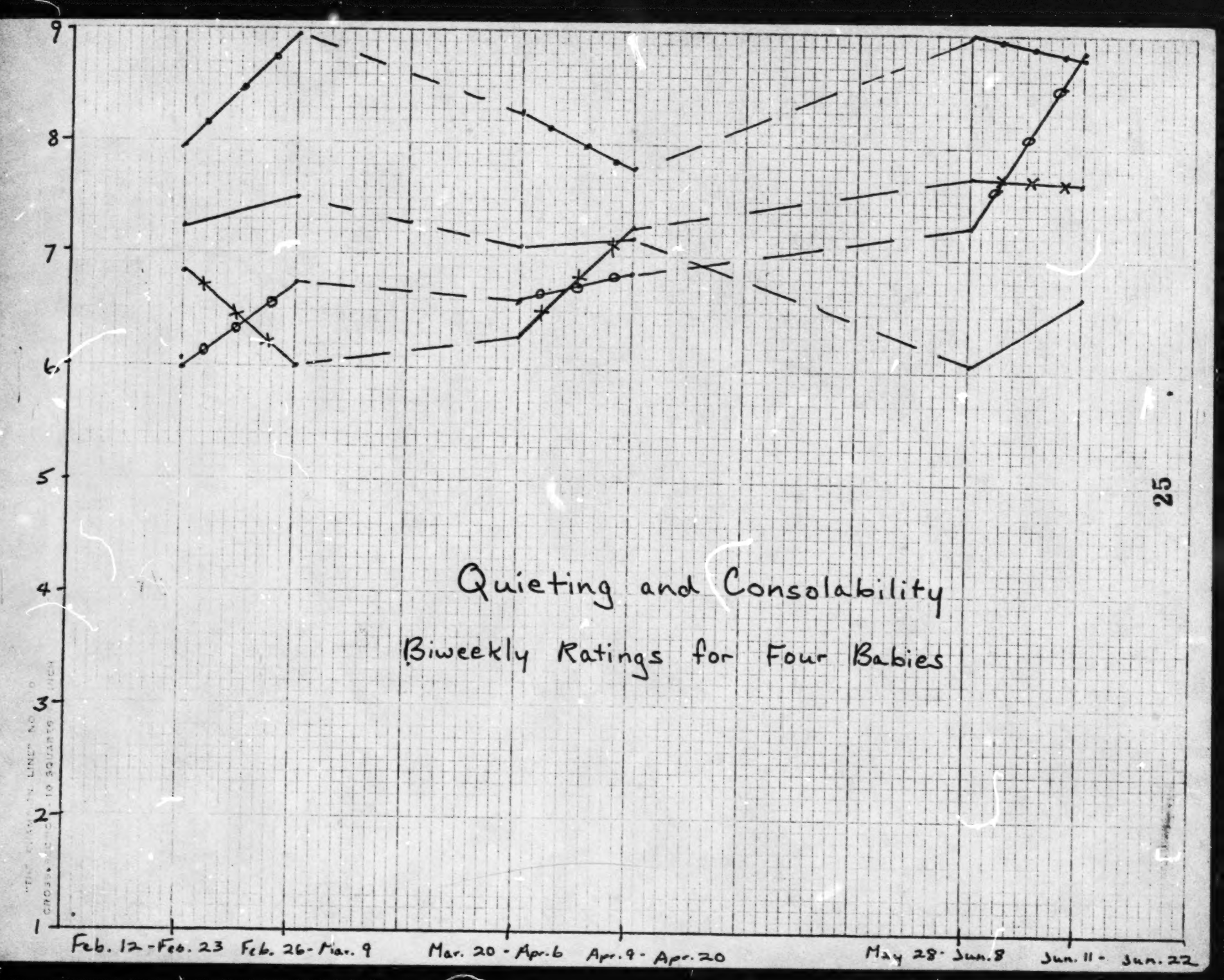


Variety of Activities

Biweekly Ratings for Four Babies

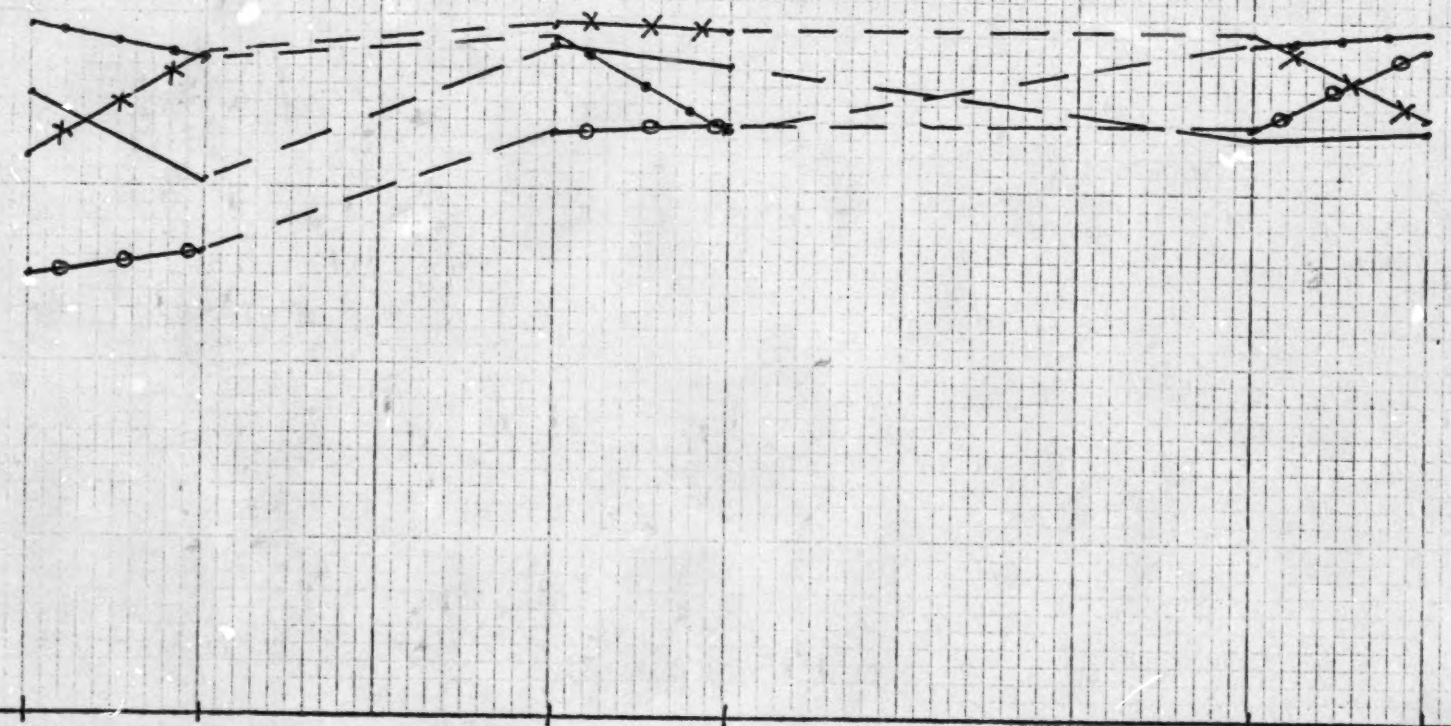


24


9
8
7
6
5
4
3
2
1
Quieting and Consolability
Biweekly Ratings for Four Babies
Feb. 12 - Feb. 23
Feb. 26 - Mar. 9
Mar. 20 - Apr. 6
Apr. 9 - Apr. 20
May 28 - Jun. 8
Jun. 11 - Jun. 22
25

Initiation of Exploration

Biweekly Ratings for Four Babies



Appendix 4

CHECKLIST OF DEVELOPMENTAL LANDMARKS

Cornell Infant Nursery

	Date First Seen	Dates Seen Consistently (at least two times)
Gross Motor		
Lifts head from mattress		
Rolls from side to side		
Lifts head and chest		
Holds head steady when held in sitting position		
Makes swimming motion		
Maintains weight when pulled to standing		
Rolls from stomach to back		
Rolls from back to stomach		
Scoots backward or forward		
Creeps (abdomen on floor)		
Sits alone		
Goes from sitting to crawling		
Goes from crawling to sitting		
Pulls self to standing		
Crawls		
Walks with help		
Stands alone		
Walks alone		
Climbs up and down step, ladder		
Manipulative		
Bats at object		
Grasps object placed in hand		
Watches or plays with hands or feet		
Reaches for and grasps object held at midline or placed nearby		
Transfers object from one hand to other		
Holds own bottle		
Holds 2 objects		
Feeds self - finger foods		
Feeds self - with spoon		
Uses one hand independently		
Puts object in container		
Picks up object with thumb or forefinger		
Stacks blocks or rings		
Perceptual-Cognitive		
Follows (visually) moving object		
Imitates simple behaviors		
Recognizes bottle		
Actively searches for hidden object		